IN THE CLAIMS:

1. (currently amended) A process of machining outer joint parts (11) and inner joint parts (21) of constant velocity universal ball joints, which outer joint parts (11) and inner joint parts (21) each comprise a longitudinal axis (Aa, Ai) and a number of ball tracks (12, 22), wherein the ball tracks are each arranged circumferentially in pairs (121, 122, 221, 222) whose central track lines are positioned in planes (E1, E2,E3,E4) extending parallel relative to one another, characterised in that comprising, machining the pairs of ball tracks (12, 22) are machined by rotating disc tools (16, 26) whose axes of rotation (R) perpendicularly intersect the respective longitudinal axis (Aa, Ai) at a distance from one another and are held and guided coaxially relative to one another.

2.-20. (cancelled)